

Remarks

The non-final Office Action dated February 5, 2010 indicated an objection to the specification and an objection to the drawings. The following new grounds of rejection were presented: claims 1-2 and 7-26 stand rejected under 35 U.S.C. § 102(b) over Croft (U.S. Patent No. 6,201,874); and claims 3-6 stand rejected under 35 U.S.C. § 103(a) over the '874 reference. Applicant traverses all of the rejections and, unless stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

Applicant appreciates the Examiner's suggestion to amend the specification in accordance with certain guidelines (to add section headings under 37 CFR 1.77(b)). Applicant respectfully declines, and prefers not to add section headings. Such section headings are not statutorily required under 35 U.S.C. § 111(a), as the guidelines at 37 CFR 1.51(d) are only suggestions for applicant's use and are not mandatory. When Rule 77 was amended in 1996, Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks, stated in the Official Gazette: "Section 1.77 is permissive rather than mandatory. ... 1.77 merely expresses the Office's preference for the arrangement of the application elements. The Office may advise an applicant that the application does not comply with the format set forth in 1.77, and suggest this format for the applicant's consideration; however, the Office will not require any application to comply with the format set forth in 1.77." See 61 FR 42790, Aug. 19, 1996.

Regarding the objection to Figure 11 at page 2 of the Office Action, the rejection asserts only that the blocks in the Figure "should be labeled." However, Applicant submits that the blocks are indeed labeled with numerals that are used in describing the Figure in the specification (*see, e.g.*, paragraph 0052 of the Applicant's published application). While the Office Action provides no rationale under the M.P.E.P. or otherwise in support of the objection, Applicant believes that its specification and figures comply with the requirements of M.P.E.P. § 608.02(b) and otherwise. Accordingly, Applicant requests that the objection be removed.

Regarding the objection to Figure 11 under 37 CFR 1.84(p)(5), Applicant has amended the specification to add reference numeral 34, and thus believes that the objection is no longer applicable.

Regarding the § 103(a) rejections of claims 3-6 over the sole '874 reference, Applicant submits that the Office Action's assertion that missing limitations are "well known" without any supporting evidence from the prior art is insufficient to establish a *prima facie* case of obviousness. Specifically, the Office Action acknowledges that the '874 reference fails to disclose various limitations involving types of diaphragms and, instead of citing to a secondary reference, simply asserts that these limitations are "well known." Without supporting evidence, these assertions are insufficient for establishing teaching or suggestion under § 103.

The § 103(a) rejections of claims 3-6 are further improper because the '874 reference requires a specific type of molded/rigid material for its conventional speaker diaphragms, and the allegedly "obvious" modifications would not comply with this requirement. For instance, the '874 reference describes that its diaphragm be of a molded shape having peaks and valleys in its natural state (*see, e.g.*, FIG. 1 and column 4:11-14 and 35-38), and further that this arrangement can be set by molding or other methods. The Office Action is silent as to how the recited structures (*e.g.*, a metal film) would be molded or otherwise shaped in accordance with the purpose of the '874 reference. Referring to the figures in the instant application and as consistent with many embodiments, the diaphragms shown may lie flat along one or the other of the electrode walls. Applicant's background discussion further characterizes undesirable aspects of molded/rigid speaker diaphragms as in the '874 reference. The Office Action has thus failed to provide any evidence supporting the apparent notion that the '874 reference would be capable of functioning with diaphragms as proposed, and it would further appear that the '874 reference fails to disclose such materials or operational approaches. Accordingly, the Office Action has not established *prima facie* obviousness and Applicant requests that the rejections be removed.

Applicant submits that the § 102 rejections are improper because the cited molded (*e.g.*, pre-tensioned) diaphragm-type device in the '874 reference fails to correspond to the claimed invention as asserted. Generally, and as consistent with the above discussion, the '874 reference uses a molded diaphragm as is common to prior speakers, and which is set in a pattern of peaks and valleys that generally deform in a "push pull" type of operation as shown in FIG. 2. This molded form is effected in different manners, such as by heating, to

impart a shape to the diaphragm via some sort of tensioning/molding. Accordingly, the '874 reference fails to correspond to claim limitations directed to an audio speaker device having a diaphragm that is substantially untensioned as in the independent claims (1 and 24).

Accordingly, the § 102 rejections of all claims that depend from claims 1 and 24, which also rely upon the '874 reference, fail to provide correspondence. The cited '874 reference further fails to disclose various limitations in the dependent claims. For instance, the single paragraph addressing the rejection of claims 1, 7, 9, 13, 18, 19, 23, 24 and 26 discusses only certain limitations in the independent claims, but fails to specifically address all limitations in each of the dependent claims. Regarding the rejection of claim 14, the Office Action has failed to establish that the '874 reference discloses a speaker device having a diaphragm and drive in which the drive "imposes a cyclic deformation in the form of a travelling wave on the diaphragm." The Office Action appears to have overlooked these limitations in failing to assert any correspondence in the rejection as discussed at page 5. In addition and as discussed above, the diaphragm in the '874 reference is pre-molded in a series of peaks/valleys, and this pre-molded shape is pushed or pulled in order to operate the device. The diaphragm thus appears to be incapable of operating in a travelling wave (*e.g.*, in which the diaphragm would be cyclically deformed in a wave pattern).

Applicant has added new claims 27-30. Support for these new claims can be found throughout the specification and figures. Exemplary embodiments are described at paragraph 0012, in which the diaphragm is "loose or "slack"" and achieves "an extremely high useful volume" with this arrangement (*e.g.*, the molded diaphragm in the '874 reference appears to suffer from this issue). This "slack" nature of the diaphragm further permits operation in a rolling wave manner as discussed above (*see, e.g.*, Figures 7-9). Applicant submits that these new claims are allowable over the cited references for reasons including those discussed above, and further because the cited references fail to disclose, teach or suggest limitations directed to a diaphragm in an amorphous configuration and/or that is substantially devoid of peaks and valleys, in its untensioned inactive state.

In view of the above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, David Schaeffer, of NXP Corporation at (212) 876-6170.

Please direct all correspondence to:

Corporate Patent Counsel
NXP Intellectual Property & Standards
1109 McKay Drive; Mail Stop SJ41
San Jose, CA 95131
CUSTOMER NO. 65913

By: 

Robert J. Crawford
Reg. No.: 32,122
Eric J. Curtin
Reg. No.: 47,511
(NXPS.498PA)